

## National Center for Autonomous Technologies

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# THINK AUTONOMOUS

## Message from the **Director** **Jonathan Beck**



APRIL 2022

### **Drone Safety Day - June 18, 2022**

Drone technologies continue to spark the imagination, creating innovation and amazing career opportunities across a wide range of industries. NCAT is proud to be partnering with the FAA for the first official Drone Safety Day being held June 18, 2022. Drone Safety Day will highlight five topic areas including: education, equity, economics, emergencies, and environment. Drone Safety Day will be a community celebration recognizing a wide variety of activities from organizations across the country. As of January 2022, this community includes over 860,000 drones registered with the FAA, and over 260,000 FAA certified Remote Pilots. Learn more about the "Fly RIGHT" safety message for Drone Safety Day at [ncatech.org/about-drone-day](http://ncatech.org/about-drone-day)

### **GM Automotive Service Educational Program**

Another area of growth for autonomous technologies is the demand for technicians in the automotive industry. Technician demands are increasing and employers are working on ways to close the workforce gaps. Macomb College has partnered with General Motors and a network of over 70 colleges nationwide through the Automotive Service Educational Program. Schools receive the latest equipment, specialized training and classroom materials. Students are sponsored by a repair facility and are provided the real-world paid work experience as part of their educational program. This is a great example of education and industry partnerships that enhance student learning experiences and help address the need



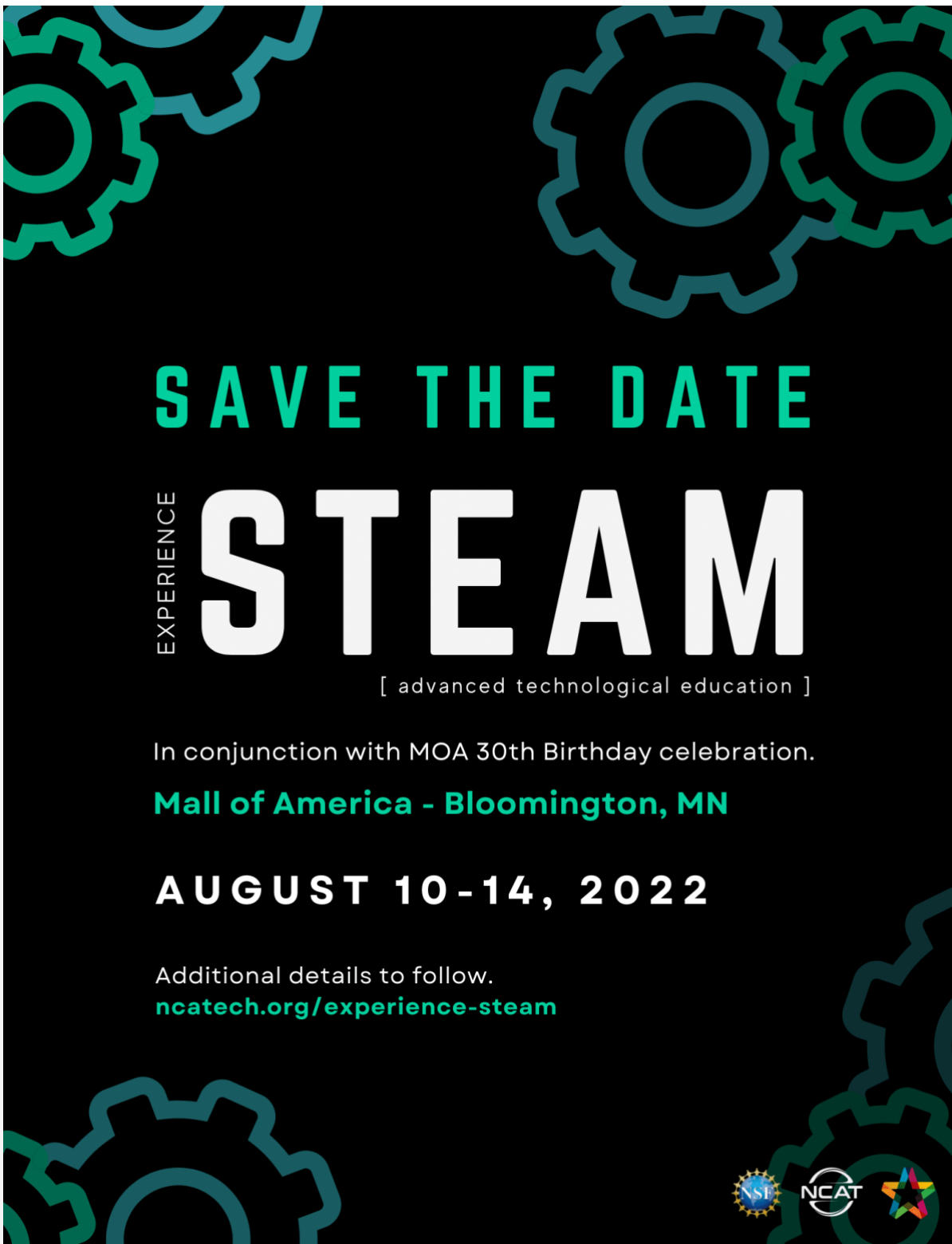
for the skilled technical workforce in critical industries driving our nation's economy.

### ***Inspiring the Future Workforce***

Recruiting talent and generating awareness of opportunities in the skilled technical workforce is critical. In the April newsletter, you hear inspiring stories from individuals like Josh Bixler from Flite Test. Flite Test started in a garage and has now become a resource center serving more than 1,500 educators and their students with opportunities to learn about aviation and flight.

On August 10-14, 2022, NCAT along with partners will host EXPERIENCE STEAM, a large-scale STEAM outreach event at Mall of America for their 30th Birthday Celebration. This event will include academic partners from both NSF and Minnesota State Colleges & Universities. Mall of America has an average daily attendance of 100,000+ and over 1 million social media followers across all platforms. This is an amazing opportunity to meet people where they are at, to explore educational programs and pathways to the skilled technical workforce.





# SAVE THE DATE

# EXPERIENCE STEAM


[ advanced technological education ]

In conjunction with MOA 30th Birthday celebration.

**Mall of America - Bloomington, MN**

**AUGUST 10-14, 2022**

Additional details to follow.  
[ncatech.org/experience-steam](https://ncatech.org/experience-steam)



## What's Your Story?





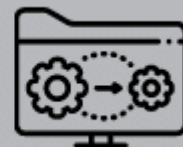
WHAT'S  
YOUR  
STORY?



**This is Josh Bixler's Story**

Josh Bixler, President - Flite Test

## Center Activities







## DRONE SAFETY DAY

— JUNE 18, 2022 —

In 2019, the Federal Aviation Administration (FAA) organized "National Drone Safety Awareness Week" which was hosted annually until 2021. This year, the FAA is evolving their approach with **ONE** Drone Safety Day.

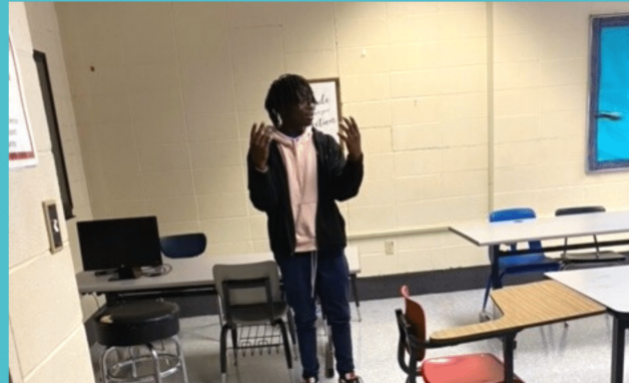
Drone Safety Day topic areas include:

- Education
- Equity
- Economics
- Emergencies
- Environment

The NCAT website is the host for Drone Safety Day and will include a complete list of events, resources, and Drone Safety Day information. If you plan on hosting an event for Drone Safety Day, make sure to submit the information at [ncatech.org/drone-day-host](https://ncatech.org/drone-day-host).

» [Learn More](#)





## NCAT Lending Program Provides Louisiana Students with Access to Drones

A rural Louisiana High School was in search of a way to incorporate drones into the classroom, without the added expense. Through **NCAT's Lending Library** program, Lea Ann Fisher from Northwood High School in Alexandria, Louisiana was able to provide her students with the opportunity to work with drones.

[» Learn More](#)

## UAS-CTI School Spotlight







HAMPTON, VIRGINIA

### Institution Fun Fact

Thomas Nelson serves a region that is home for many military service members and their families. In Academic Year 20-21, 24.6% of Thomas Nelson credit students indicated a military affiliation (e.g., active-duty, veteran, military spouse, or military dependent).

### Offerings

Small Unmanned Aircraft Systems Flight Technician Certificate

### UAS Program Info

The 19-credit sUAS Flight Technician Certificate program teaches students manual flight skills and how to legally fly in a commercial operation. Knowledge of the safe and legal operation of an unmanned aircraft and the collection of imagery for customers is on the forefront of employer demand for many new and emerging fields. This program develops these competencies and allows participants to succeed in this challenging and demanding field.



[Learn More](#)

## New FREE Resources!





The background of the top section is a composite image. It features a satellite with two large solar panel arrays in the upper left, set against a deep space background with stars and nebulae. The lower half of the image shows the curved horizon of the Earth, with blue oceans and white clouds.

## TUTORIAL

# Fundamentals of Remote Sensing

This tutorial on remote sensing technology and applications is designed primarily for late high school or early college students.

Some previous exposure to science, mathematics, and environmental studies is a definite advantage.

[» View Curriculum](#)

Developed by:  **CRSS • SCT**





## MODULE

# Fundamentals of LiDAR Technologies

This 45-page resource is an educational module that provides theoretical knowledge about the growing technology of LiDAR. The module can be embedded in courses related to photonics, electronics, advanced manufacturing, mechatronics, robotics, micro- and nano-technology, and more.

[» View Curriculum](#)

Developed by:  **Baker College**



**COURSE****Exploring Our World  
Through Geospatial  
Technology**

This all-online, face-to-face, or hybrid exploratory course introduces students to the fundamental concepts of Geospatial Science and how Geospatial Technology is used to measure, imagine, study, and discover our ever-changing human and natural world.

[» View Curriculum](#)

Developed by:

**WEBER STATE**  
UNIVERSITY**Upcoming Events**





**6-10  
JUN**

*Virtual Event*

# GeoEd'22

Check out the presentation line-up for this week-long  
**FREE** event presented by the GeoTECH Center.





**JUN  
2022**



## **Minnesota ACE Camp**

**Bridging the gap between the classroom and the workplace,  
helping students visualize themselves in a variety of aviation  
and aerospace careers.**



**21-22  
JUN**

Selden, NY

## **Electric Drive Vehicles Technology Professional Development**

Workshop designed to provide fundamentals of electric-drive vehicle drivetrain configurations, energy storage systems, power electronics, electric machines and autonomous driving.

## **Industry News**







The Journal of Advanced Technological Education (JATE) is a peer-reviewed technical journal produced by the ATE community. JATE is a platform for educators who are interested in teaching advanced technologies and technician education. This includes 2-year community college faculty, undergraduate researchers, STEM educators in grades K-12, university faculty, as well as industry personnel.

» Learn More

## Student Opportunities





## Macomb Community College & GM Automotive Service Educational Program

STUDENT OPPORTUNITIES | APR 2022

Macomb Community College is seeking applicants to begin training that will lead to a career as an Automotive Service Technician. This program includes exposure to new and future products as well as repair facilities operations.

The program is designed to produce highly trained technicians who can service and maintain the sophisticated electronic and mechanical systems included in all new vehicle products.

As a cooperative educational experience, students will spend a portion of their course time in automotive technical classes and in the sponsoring repair facilities, gaining real-world work experience.

» [Learn More](#)







## FREE CAV Career Pathways Camp

STUDENT OPPORTUNITIES | APR 2022



In this one-week camp, you'll learn all about connected and automated vehicle (CAV) technology and explore career opportunities in a cutting-edge industry that will help shape the future of transportation. During the camp you will:

- Get hands-on opportunities with automated vehicles
- Take field trips to organizations working on CAV technology
- Attend info sessions with practitioners in the field & UofM researchers
- Learn about a wide variety of career opportunities related to CAVs

### Who Can Apply

Eligible applicants should be students entering grades 10-12 in fall 2022 with an interest in automotive tech and maintenance, manufacturing, engineering, planning or robotics

**Dates:** August 8-12, 2022

**Location:** University of Minnesota  
Twin Cities Campus  
Minneapolis, MN

» [Learn More](#)

# Training Opportunities





# \$1,000

**PROFESSIONAL  
DEVELOPMENT  
FUNDING**

**FOR EDUCATORS**

- SECONDARY
- 2-OR-4-YEAR FACULTY
- TECHNICIAN EDUCATION



[NCATECH.ORG/PROFESSIONAL-DEVELOPMENT](https://ncatech.org/professional-development)





## Up-Skill Your Workforce Today with TechCred

TRAINING OPPORTUNITIES | APR 2022

TechCred helps Ohioans learn new skills and helps employers build a stronger workforce with the skills needed in a technology-infused economy. Many of the approved trainings can be completed online, take a year or less to complete, and prepare current and future employees for the technology jobs Ohio employers need.

If you are an employer looking to advance your employee's skills and live in the state of Ohio, the Ohio TechCred program is a great opportunity for your company to take advantage of. Employers can apply for reimbursement for up to \$2,000 per credential and receive up to \$30,000 per funding round!



**Learn More**



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